

BISON OIL & GAS II, LLC

WELD COUNTY, COLORADO (NAD 83)

NE NE SEC.14 T8N R60W 6th P.M.

BOOMSLANG FED 8-60 14A-13-18-3

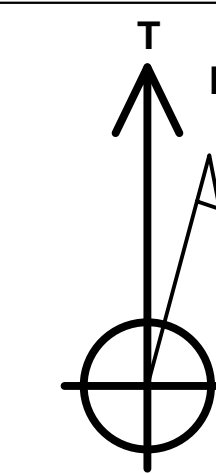
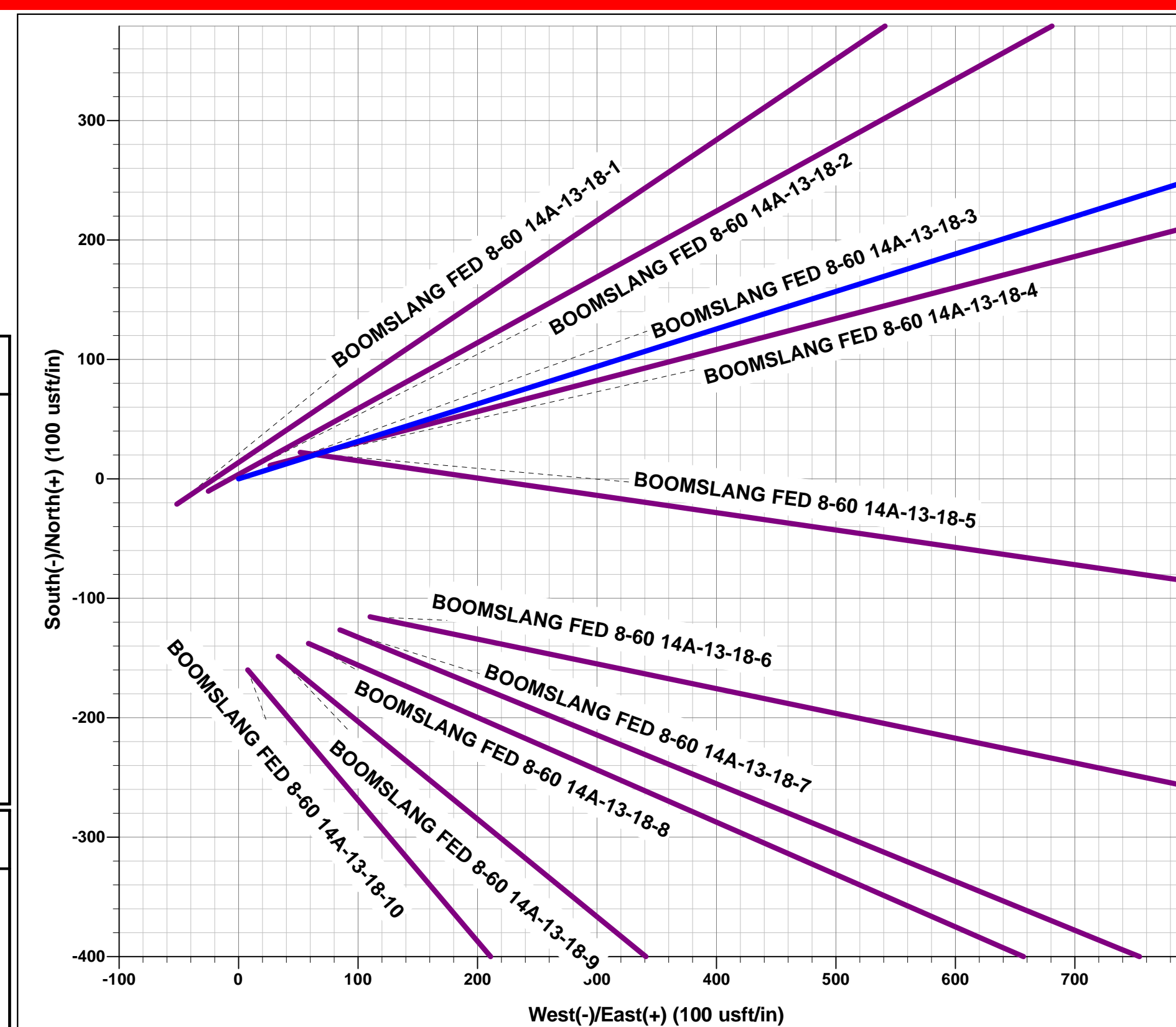
ORIGINAL WELLBORE

28 August, 2017

Plan: PROPOSAL #1



Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE NE SEC.14 T8N R60W 6th P.M.
Well: BOOMSLANG FED 8-60 14A-13-18-3
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1



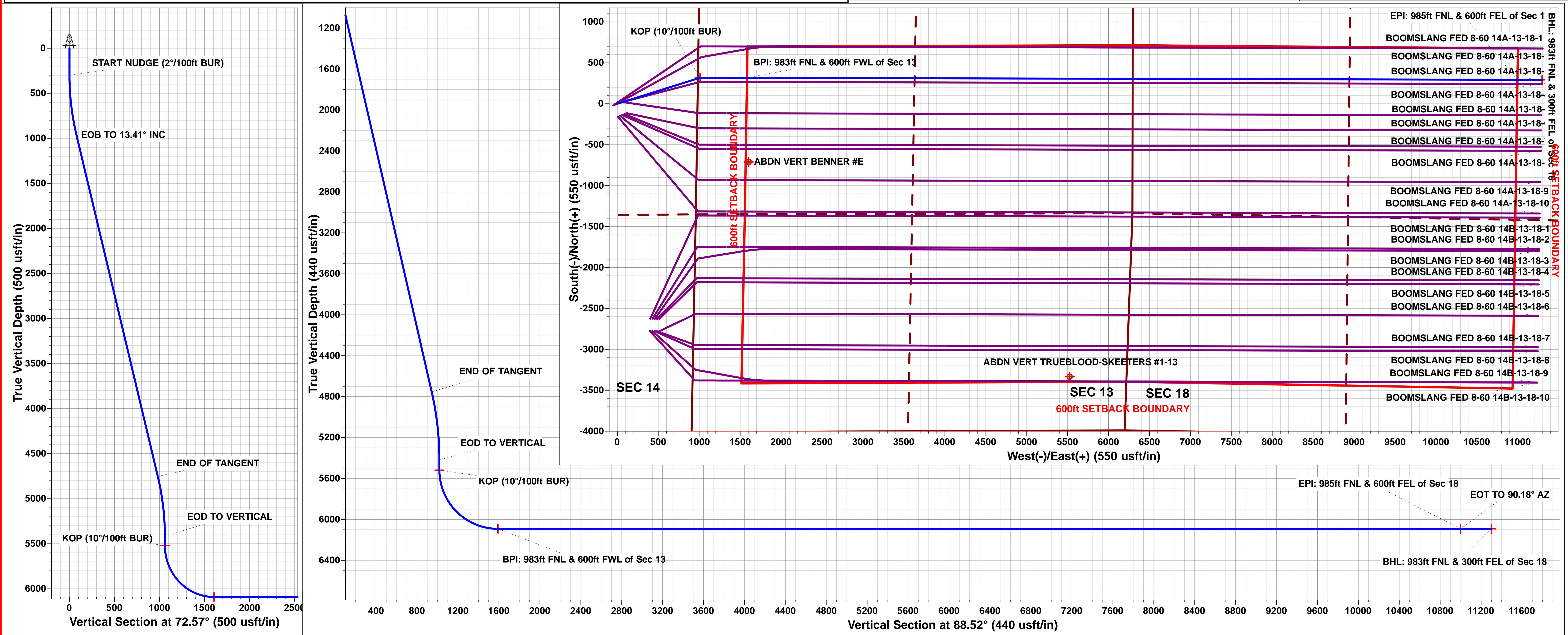
Azimuths to True North
Magnetic North: 7.83°

Magnetic Field
Strength: 52580.0nT
Dip Angle: 67.17°
Date: 27/08/2017
Model: IGRF2015

ANNOTATIONS									
	TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation
	0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 1289ft FNL & 978ft FEL of Sec 14
	300.0	300.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
	964.2	970.3	13.41	72.57	23.4	74.5	75.0	78.1	EOB TO 13.41° INC
	4754.4	4866.7	13.41	72.57	293.9	936.3	943.6	981.4	END OF TANGENT
	5418.6	5537.0	0.00	0.00	317.3	1010.8	1018.6	1059.4	EOD TO VERTICAL
	5518.6	5637.0	0.00	0.00	317.3	1010.8	1018.6	1059.4	KOP (10°/100ft BUR)
	6091.6	6537.0	90.00	90.14	315.9	1583.8	1591.4	1632.4	BPI: 983ft FNL & 600ft FWL of Sec 13
	6091.6	15948.4	90.00	90.15	292.1	10995.2	10999.1	11043.8	EPI: 985ft FNL & 600ft FEL of Sec 18
	6091.6	15949.5	90.00	90.19	292.1	10996.2	11000.1	11044.9	EOT TO 90.18° AZ
	6091.6	16248.9	90.00	90.18	291.2	11295.6	11299.4	11344.3	BHL: 983ft FNL & 300ft FEL of Sec 18
WELLBORE TARGET DETAILS (LAT/LONG)									
	Name		TVD		+N/-S	+E/-W	Latitude	Longitude	
	KOP: BOOMSLANG FED 8-60 14A-13-18-3		5518.6		317.3	1010.8	40.667157	-104.048259	
	BPI: BOOMSLANG FED 8-60 14A-13-18-3		6091.6		315.9	1583.8	40.667153	-104.046194	
	EPI: BOOMSLANG FED 8-60 14A-13-18-3		6091.6		292.1	10995.2	40.667081	-104.012269	
	BHL: BOOMSLANG FED 8-60 14A-13-18-3		6091.6		291.2	11295.6	40.667078	-104.011186	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
452.7	451.1	PIERRE SH (BASE FOX HILLS)
3182.7	3249.8	PARKMAN
3902.7	3990.0	SUSSEX
4642.7	4750.7	SHANNON
5997.7	6202.3	SHARON SPRINGS SHALE
6057.7	6335.7	NIOBRARA FORMATION
6067.7	6367.1	NIOBRARA A CHALK

PROPOSED LOCAL COORDINATES:		
SHL: 1289ft FNL & 978ft FEL of Sec 14		
BEGIN PROD INT: 983ft FNL & 600ft FWL of Sec 13		
END PROD INTERVAL: 985ft FNL & 600ft FEL of Sec 18		
BHL: 983ft FNL & 300ft FEL of Sec 18		



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14A-13-18-3
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4901.6usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4901.6usft (Original Well Elev)
Site:	NE NE SEC.14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14A-13-18-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Project	WELD COUNTY, COLORADO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	NE NE SEC.14 T8N R60W 6th P.M.				
Site Position:		Northing:	1,488,828.86 usft	Latitude:	40.666228
From:	Lat/Long	Easting:	3,401,656.69 usft	Longitude:	-104.052089
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000 ft	Grid Convergence:	0.94 °

Well	BOOMSLANG FED 8-60 14A-13-18-3					
Well Position	+N/-S	21.1 usft	Northing:	1,488,850.81 usft	Latitude:	40.666286
	+E/-W	51.6 usft	Easting:	3,401,707.94 usft	Longitude:	-104.051903
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,876.6 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	27/08/2017	7.82	67.17	52,580

Design	PROPOSAL #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	88.52

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	-4,901.6	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	-4,601.6	0.0	0.0	0.00	0.00	0.00	0.00	
970.3	13.41	72.57	964.2	-3,937.4	23.4	74.5	2.00	2.00	0.00	72.57	
4,866.7	13.41	72.57	4,754.4	-147.2	293.9	936.3	0.00	0.00	0.00	0.00	
5,537.0	0.00	0.00	5,418.6	517.0	317.3	1,010.8	2.00	-2.00	0.00	180.00	
5,637.0	0.00	0.00	5,518.6	617.0	317.3	1,010.8	0.00	0.00	0.00	0.00	KOP: BOOMSLANG I
6,537.0	90.00	90.14	6,091.6	1,190.0	315.9	1,583.8	10.00	10.00	10.01	90.14	BPI: BOOMSLANG F
15,948.4	90.00	90.15	6,091.6	1,190.0	292.1	10,995.2	0.00	0.00	0.00	75.68	EPI: BOOMSLANG F
15,949.5	90.00	90.19	6,091.6	1,190.0	292.1	10,996.2	3.00	0.00	3.00	90.00	
16,248.9	90.00	90.18	6,091.6	1,190.0	291.2	11,295.6	0.00	0.00	0.00	-131.68	BHL: BOOMSLANG F

Planning Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4901.6usft (Original Well Elev)
Site:	NE NE SEC.14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14A-13-18-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
SHL: 1289ft FNL & 978ft FEL of Sec 14										
0.0	0.00	0.00	0.0	4,901.60	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,801.60	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,701.60	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
300.0	0.00	0.00	300.0	4,601.60	0.0	0.0	0.0	0.00	0.00	0.00
400.0	2.00	72.57	400.0	4,501.62	0.5	1.7	1.7	2.00	2.00	0.00
PIERRE SHALE (BASE FOX HILLS)										
451.7	3.03	72.57	451.6	4,450.00	1.2	3.8	3.9	2.00	2.00	0.00
500.0	4.00	72.57	499.8	4,401.76	2.1	6.7	6.7	2.00	2.00	0.00
600.0	6.00	72.57	599.5	4,302.15	4.7	15.0	15.1	2.00	2.00	0.00
700.0	8.00	72.57	698.7	4,202.90	8.4	26.6	26.8	2.00	2.00	0.00
800.0	10.00	72.57	797.5	4,104.13	13.0	41.5	41.8	2.00	2.00	0.00
900.0	12.00	72.57	895.6	4,005.98	18.7	59.7	60.2	2.00	2.00	0.00
EOB TO 13.41° INC										
970.3	13.41	72.57	964.2	3,937.44	23.4	74.5	75.0	2.00	2.00	0.00
1,000.0	13.41	72.57	993.1	3,908.51	25.4	81.0	81.7	0.00	0.00	0.00
1,100.0	13.41	72.57	1,090.4	3,811.23	32.4	103.2	104.0	0.00	0.00	0.00
1,200.0	13.41	72.57	1,187.6	3,713.96	39.3	125.3	126.3	0.00	0.00	0.00
1,300.0	13.41	72.57	1,284.9	3,616.68	46.3	147.4	148.5	0.00	0.00	0.00
1,400.0	13.41	72.57	1,382.2	3,519.41	53.2	169.5	170.8	0.00	0.00	0.00
1,500.0	13.41	72.57	1,479.5	3,422.13	60.2	191.6	193.1	0.00	0.00	0.00
1,600.0	13.41	72.57	1,576.7	3,324.86	67.1	213.8	215.4	0.00	0.00	0.00
1,700.0	13.41	72.57	1,674.0	3,227.58	74.0	235.9	237.7	0.00	0.00	0.00
1,800.0	13.41	72.57	1,771.3	3,130.30	81.0	258.0	260.0	0.00	0.00	0.00
1,900.0	13.41	72.57	1,868.6	3,033.03	87.9	280.1	282.3	0.00	0.00	0.00
2,000.0	13.41	72.57	1,965.8	2,935.75	94.9	302.2	304.6	0.00	0.00	0.00
2,100.0	13.41	72.57	2,063.1	2,838.48	101.8	324.4	326.9	0.00	0.00	0.00
2,200.0	13.41	72.57	2,160.4	2,741.20	108.8	346.5	349.2	0.00	0.00	0.00
2,300.0	13.41	72.57	2,257.7	2,643.93	115.7	368.6	371.5	0.00	0.00	0.00
2,400.0	13.41	72.57	2,354.9	2,546.65	122.7	390.7	393.7	0.00	0.00	0.00
2,500.0	13.41	72.57	2,452.2	2,449.38	129.6	412.8	416.0	0.00	0.00	0.00
2,600.0	13.41	72.57	2,549.5	2,352.10	136.5	435.0	438.3	0.00	0.00	0.00
2,700.0	13.41	72.57	2,646.8	2,254.82	143.5	457.1	460.6	0.00	0.00	0.00
2,800.0	13.41	72.57	2,744.1	2,157.55	150.4	479.2	482.9	0.00	0.00	0.00
2,900.0	13.41	72.57	2,841.3	2,060.27	157.4	501.3	505.2	0.00	0.00	0.00
3,000.0	13.41	72.57	2,938.6	1,963.00	164.3	523.4	527.5	0.00	0.00	0.00
3,100.0	13.41	72.57	3,035.9	1,865.72	171.3	545.6	549.8	0.00	0.00	0.00
3,200.0	13.41	72.57	3,133.2	1,768.45	178.2	567.7	572.1	0.00	0.00	0.00
PARKMAN										
3,249.8	13.41	72.57	3,181.6	1,720.00	181.7	578.7	583.2	0.00	0.00	0.00
3,300.0	13.41	72.57	3,230.4	1,671.17	185.1	589.8	594.4	0.00	0.00	0.00
3,400.0	13.41	72.57	3,327.7	1,573.90	192.1	611.9	616.7	0.00	0.00	0.00
3,500.0	13.41	72.57	3,425.0	1,476.62	199.0	634.0	638.9	0.00	0.00	0.00
3,600.0	13.41	72.57	3,522.3	1,379.35	206.0	656.1	661.2	0.00	0.00	0.00
3,700.0	13.41	72.57	3,619.5	1,282.07	212.9	678.3	683.5	0.00	0.00	0.00
3,800.0	13.41	72.57	3,716.8	1,184.79	219.9	700.4	705.8	0.00	0.00	0.00
3,900.0	13.41	72.57	3,814.1	1,087.52	226.8	722.5	728.1	0.00	0.00	0.00
SUSSEX										
3,990.0	13.41	72.57	3,901.6	1,000.00	233.1	742.4	748.2	0.00	0.00	0.00
4,000.0	13.41	72.57	3,911.4	990.24	233.7	744.6	750.4	0.00	0.00	0.00
4,100.0	13.41	72.57	4,008.6	892.97	240.7	766.7	772.7	0.00	0.00	0.00
4,200.0	13.41	72.57	4,105.9	795.69	247.6	788.9	795.0	0.00	0.00	0.00

Planning Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4901.6usft (Original Well Elev)
Site:	NE NE SEC.14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14A-13-18-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,300.0	13.41	72.57	4,203.2	698.42	254.6	811.0	817.3	0.00	0.00	0.00
4,400.0	13.41	72.57	4,300.5	601.14	261.5	833.1	839.6	0.00	0.00	0.00
4,500.0	13.41	72.57	4,397.7	503.87	268.5	855.2	861.9	0.00	0.00	0.00
4,600.0	13.41	72.57	4,495.0	406.59	275.4	877.3	884.1	0.00	0.00	0.00
4,700.0	13.41	72.57	4,592.3	309.31	282.4	899.5	906.4	0.00	0.00	0.00
SHANNON										
4,750.7	13.41	72.57	4,641.6	260.00	285.9	910.7	917.7	0.00	0.00	0.00
4,800.0	13.41	72.57	4,689.6	212.04	289.3	921.6	928.7	0.00	0.00	0.00
END OF TANGENT										
4,866.7	13.41	72.57	4,754.4	147.16	293.9	936.3	943.6	0.00	0.00	0.00
4,900.0	12.74	72.57	4,786.9	114.72	296.2	943.5	950.8	2.00	-2.00	0.00
5,000.0	10.74	72.57	4,884.8	16.82	302.3	962.9	970.4	2.00	-2.00	0.00
5,100.0	8.74	72.57	4,983.3	-81.74	307.3	979.1	986.7	2.00	-2.00	0.00
5,200.0	6.74	72.57	5,082.4	-180.82	311.4	991.9	999.6	2.00	-2.00	0.00
5,300.0	4.74	72.57	5,181.9	-280.32	314.4	1,001.5	1,009.2	2.00	-2.00	0.00
5,400.0	2.74	72.57	5,281.7	-380.10	316.3	1,007.7	1,015.5	2.00	-2.00	0.00
5,500.0	0.74	72.57	5,381.6	-480.05	317.2	1,010.6	1,018.4	2.00	-2.00	0.00
EOD TO VERTICAL										
5,537.0	0.00	0.00	5,418.6	-517.00	317.3	1,010.8	1,018.6	2.00	-2.00	0.00
5,600.0	0.00	0.00	5,481.6	-580.05	317.3	1,010.8	1,018.6	0.00	0.00	0.00
KOP (10°/100ft BUR)										
5,637.0	0.00	0.00	5,518.6	-617.00	317.3	1,010.8	1,018.6	0.00	0.00	0.00
5,700.0	6.30	90.14	5,581.5	-679.92	317.3	1,014.3	1,022.1	10.00	10.00	0.00
5,800.0	16.30	90.14	5,679.5	-777.85	317.2	1,033.8	1,041.7	10.00	10.00	0.00
5,900.0	26.30	90.14	5,772.5	-870.90	317.2	1,070.1	1,077.9	10.00	10.00	0.00
6,000.0	36.30	90.14	5,857.8	-956.24	317.0	1,122.0	1,129.8	10.00	10.00	0.00
6,100.0	46.30	90.14	5,932.9	-1,031.27	316.9	1,187.9	1,195.7	10.00	10.00	0.00
6,200.0	56.30	90.14	5,995.3	-1,093.71	316.7	1,265.9	1,273.6	10.00	10.00	0.00
SHARON SPRINGS SHALE										
6,202.3	56.53	90.14	5,996.6	-1,095.00	316.7	1,267.8	1,275.6	10.00	10.00	0.00
6,300.0	66.30	90.14	6,043.3	-1,141.67	316.5	1,353.5	1,361.2	10.00	10.00	0.00
NIORARA FORMATION										
6,335.7	69.87	90.14	6,056.6	-1,155.00	316.4	1,386.6	1,394.3	10.00	10.00	0.00
NIORARA A CHALK										
6,367.1	73.01	90.14	6,066.6	-1,165.00	316.3	1,416.4	1,424.1	10.00	10.00	0.00
6,400.0	76.30	90.14	6,075.3	-1,173.70	316.3	1,448.1	1,455.7	10.00	10.00	0.00
6,500.0	86.30	90.14	6,090.4	-1,188.80	316.0	1,546.8	1,554.4	10.00	10.00	0.00
BPI: 983ft FNL & 600ft FWL of Sec 13										
6,537.0	90.00	90.14	6,091.6	-1,190.00	315.9	1,583.8	1,591.4	10.00	10.00	0.00
6,600.0	90.00	90.14	6,091.6	-1,190.00	315.8	1,646.8	1,654.4	0.00	0.00	0.00
6,700.0	90.00	90.14	6,091.6	-1,190.01	315.6	1,746.8	1,754.3	0.00	0.00	0.00
6,800.0	90.00	90.14	6,091.6	-1,190.01	315.3	1,846.8	1,854.3	0.00	0.00	0.00
6,900.0	90.00	90.14	6,091.6	-1,190.01	315.1	1,946.8	1,954.2	0.00	0.00	0.00
7,000.0	90.00	90.14	6,091.6	-1,190.02	314.8	2,046.8	2,054.2	0.00	0.00	0.00
7,100.0	90.00	90.14	6,091.6	-1,190.02	314.6	2,146.8	2,154.2	0.00	0.00	0.00
7,200.0	90.00	90.14	6,091.6	-1,190.02	314.4	2,246.8	2,254.1	0.00	0.00	0.00
7,300.0	90.00	90.14	6,091.6	-1,190.03	314.1	2,346.8	2,354.1	0.00	0.00	0.00
7,400.0	90.00	90.14	6,091.6	-1,190.03	313.9	2,446.8	2,454.1	0.00	0.00	0.00
7,500.0	90.00	90.14	6,091.6	-1,190.03	313.6	2,546.8	2,554.0	0.00	0.00	0.00
7,600.0	90.00	90.14	6,091.6	-1,190.04	313.4	2,646.8	2,654.0	0.00	0.00	0.00
7,700.0	90.00	90.14	6,091.6	-1,190.04	313.1	2,746.8	2,753.9	0.00	0.00	0.00
7,800.0	90.00	90.14	6,091.6	-1,190.04	312.9	2,846.8	2,853.9	0.00	0.00	0.00
7,900.0	90.00	90.14	6,091.6	-1,190.04	312.7	2,946.8	2,953.9	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14A-13-18-3
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4901.6usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4901.6usft (Original Well Elev)
Site:	NE NE SEC.14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14A-13-18-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,000.0	90.00	90.14	6,091.6	-1,190.05	312.4	3,046.8	3,053.8	0.00	0.00	0.00
8,100.0	90.00	90.14	6,091.6	-1,190.05	312.2	3,146.8	3,153.8	0.00	0.00	0.00
8,200.0	90.00	90.14	6,091.7	-1,190.05	311.9	3,246.8	3,253.7	0.00	0.00	0.00
8,300.0	90.00	90.14	6,091.7	-1,190.05	311.7	3,346.8	3,353.7	0.00	0.00	0.00
8,400.0	90.00	90.14	6,091.7	-1,190.06	311.4	3,446.8	3,453.7	0.00	0.00	0.00
8,500.0	90.00	90.14	6,091.7	-1,190.06	311.2	3,546.8	3,553.6	0.00	0.00	0.00
8,600.0	90.00	90.14	6,091.7	-1,190.06	311.0	3,646.8	3,653.6	0.00	0.00	0.00
8,700.0	90.00	90.14	6,091.7	-1,190.06	310.7	3,746.8	3,753.5	0.00	0.00	0.00
8,800.0	90.00	90.14	6,091.7	-1,190.07	310.5	3,846.8	3,853.5	0.00	0.00	0.00
8,900.0	90.00	90.14	6,091.7	-1,190.07	310.2	3,946.8	3,953.5	0.00	0.00	0.00
9,000.0	90.00	90.14	6,091.7	-1,190.07	310.0	4,046.8	4,053.4	0.00	0.00	0.00
9,100.0	90.00	90.14	6,091.7	-1,190.07	309.7	4,146.8	4,153.4	0.00	0.00	0.00
9,200.0	90.00	90.14	6,091.7	-1,190.07	309.5	4,246.8	4,253.3	0.00	0.00	0.00
9,300.0	90.00	90.14	6,091.7	-1,190.07	309.2	4,346.8	4,353.3	0.00	0.00	0.00
9,400.0	90.00	90.14	6,091.7	-1,190.08	309.0	4,446.8	4,453.3	0.00	0.00	0.00
9,500.0	90.00	90.14	6,091.7	-1,190.08	308.7	4,546.8	4,553.2	0.00	0.00	0.00
9,600.0	90.00	90.14	6,091.7	-1,190.08	308.5	4,646.8	4,653.2	0.00	0.00	0.00
9,700.0	90.00	90.14	6,091.7	-1,190.08	308.2	4,746.8	4,753.1	0.00	0.00	0.00
9,800.0	90.00	90.14	6,091.7	-1,190.08	308.0	4,846.8	4,853.1	0.00	0.00	0.00
9,900.0	90.00	90.14	6,091.7	-1,190.08	307.8	4,946.8	4,953.1	0.00	0.00	0.00
10,000.0	90.00	90.14	6,091.7	-1,190.08	307.5	5,046.8	5,053.0	0.00	0.00	0.00
10,100.0	90.00	90.14	6,091.7	-1,190.08	307.3	5,146.8	5,153.0	0.00	0.00	0.00
10,200.0	90.00	90.14	6,091.7	-1,190.09	307.0	5,246.8	5,252.9	0.00	0.00	0.00
10,300.0	90.00	90.14	6,091.7	-1,190.09	306.8	5,346.8	5,352.9	0.00	0.00	0.00
10,400.0	90.00	90.14	6,091.7	-1,190.09	306.5	5,446.8	5,452.9	0.00	0.00	0.00
10,500.0	90.00	90.14	6,091.7	-1,190.09	306.3	5,546.8	5,552.8	0.00	0.00	0.00
10,600.0	90.00	90.14	6,091.7	-1,190.09	306.0	5,646.8	5,652.8	0.00	0.00	0.00
10,700.0	90.00	90.14	6,091.7	-1,190.09	305.7	5,746.8	5,752.7	0.00	0.00	0.00
10,800.0	90.00	90.14	6,091.7	-1,190.09	305.5	5,846.8	5,852.7	0.00	0.00	0.00
10,900.0	90.00	90.14	6,091.7	-1,190.09	305.2	5,946.8	5,952.7	0.00	0.00	0.00
11,000.0	90.00	90.14	6,091.7	-1,190.09	305.0	6,046.8	6,052.6	0.00	0.00	0.00
11,100.0	90.00	90.14	6,091.7	-1,190.09	304.7	6,146.8	6,152.6	0.00	0.00	0.00
11,200.0	90.00	90.14	6,091.7	-1,190.09	304.5	6,246.8	6,252.5	0.00	0.00	0.00
11,300.0	90.00	90.15	6,091.7	-1,190.09	304.2	6,346.8	6,352.5	0.00	0.00	0.00
11,400.0	90.00	90.15	6,091.7	-1,190.09	304.0	6,446.8	6,452.5	0.00	0.00	0.00
11,500.0	90.00	90.15	6,091.7	-1,190.09	303.7	6,546.8	6,552.4	0.00	0.00	0.00
11,600.0	90.00	90.15	6,091.7	-1,190.09	303.5	6,646.8	6,652.4	0.00	0.00	0.00
11,700.0	90.00	90.15	6,091.7	-1,190.09	303.2	6,746.8	6,752.3	0.00	0.00	0.00
11,800.0	90.00	90.15	6,091.7	-1,190.09	303.0	6,846.8	6,852.3	0.00	0.00	0.00
11,900.0	90.00	90.15	6,091.7	-1,190.09	302.7	6,946.8	6,952.3	0.00	0.00	0.00
12,000.0	90.00	90.15	6,091.7	-1,190.09	302.5	7,046.8	7,052.2	0.00	0.00	0.00
12,100.0	90.00	90.15	6,091.7	-1,190.09	302.2	7,146.8	7,152.2	0.00	0.00	0.00
12,200.0	90.00	90.15	6,091.7	-1,190.09	301.9	7,246.8	7,252.1	0.00	0.00	0.00
12,300.0	90.00	90.15	6,091.7	-1,190.09	301.7	7,346.8	7,352.1	0.00	0.00	0.00
12,400.0	90.00	90.15	6,091.7	-1,190.08	301.4	7,446.8	7,452.1	0.00	0.00	0.00
12,500.0	90.00	90.15	6,091.7	-1,190.08	301.2	7,546.8	7,552.0	0.00	0.00	0.00
12,600.0	90.00	90.15	6,091.7	-1,190.08	300.9	7,646.8	7,652.0	0.00	0.00	0.00
12,700.0	90.00	90.15	6,091.7	-1,190.08	300.7	7,746.8	7,751.9	0.00	0.00	0.00
12,800.0	90.00	90.15	6,091.7	-1,190.08	300.4	7,846.8	7,851.9	0.00	0.00	0.00
12,900.0	90.00	90.15	6,091.7	-1,190.08	300.1	7,946.8	7,951.9	0.00	0.00	0.00
13,000.0	90.00	90.15	6,091.7	-1,190.08	299.9	8,046.8	8,051.8	0.00	0.00	0.00
13,100.0	90.00	90.15	6,091.7	-1,190.08	299.6	8,146.8	8,151.8	0.00	0.00	0.00
13,200.0	90.00	90.15	6,091.7	-1,190.07	299.4	8,246.8	8,251.7	0.00	0.00	0.00
13,300.0	90.00	90.15	6,091.7	-1,190.07	299.1	8,346.8	8,351.7	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14A-13-18-3
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4901.6usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4901.6usft (Original Well Elev)
Site:	NE NE SEC.14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14A-13-18-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,400.0	90.00	90.15	6,091.7	-1,190.07	298.8	8,446.8	8,451.7	0.00	0.00	0.00
13,500.0	90.00	90.15	6,091.7	-1,190.07	298.6	8,546.8	8,551.6	0.00	0.00	0.00
13,600.0	90.00	90.15	6,091.7	-1,190.07	298.3	8,646.8	8,651.6	0.00	0.00	0.00
13,700.0	90.00	90.15	6,091.7	-1,190.07	298.1	8,746.8	8,751.5	0.00	0.00	0.00
13,800.0	90.00	90.15	6,091.7	-1,190.06	297.8	8,846.8	8,851.5	0.00	0.00	0.00
13,900.0	90.00	90.15	6,091.7	-1,190.06	297.5	8,946.8	8,951.5	0.00	0.00	0.00
14,000.0	90.00	90.15	6,091.7	-1,190.06	297.3	9,046.8	9,051.4	0.00	0.00	0.00
14,100.0	90.00	90.15	6,091.7	-1,190.06	297.0	9,146.8	9,151.4	0.00	0.00	0.00
14,200.0	90.00	90.15	6,091.7	-1,190.05	296.8	9,246.8	9,251.3	0.00	0.00	0.00
14,300.0	90.00	90.15	6,091.7	-1,190.05	296.5	9,346.8	9,351.3	0.00	0.00	0.00
14,400.0	90.00	90.15	6,091.6	-1,190.05	296.2	9,446.8	9,451.2	0.00	0.00	0.00
14,500.0	90.00	90.15	6,091.6	-1,190.05	296.0	9,546.8	9,551.2	0.00	0.00	0.00
14,600.0	90.00	90.15	6,091.6	-1,190.04	295.7	9,646.8	9,651.2	0.00	0.00	0.00
14,700.0	90.00	90.15	6,091.6	-1,190.04	295.4	9,746.8	9,751.1	0.00	0.00	0.00
14,800.0	90.00	90.15	6,091.6	-1,190.04	295.2	9,846.8	9,851.1	0.00	0.00	0.00
14,900.0	90.00	90.15	6,091.6	-1,190.04	294.9	9,946.8	9,951.0	0.00	0.00	0.00
15,000.0	90.00	90.15	6,091.6	-1,190.03	294.6	10,046.8	10,051.0	0.00	0.00	0.00
15,100.0	90.00	90.15	6,091.6	-1,190.03	294.4	10,146.8	10,151.0	0.00	0.00	0.00
15,200.0	90.00	90.15	6,091.6	-1,190.03	294.1	10,246.8	10,250.9	0.00	0.00	0.00
15,300.0	90.00	90.15	6,091.6	-1,190.02	293.8	10,346.7	10,350.9	0.00	0.00	0.00
15,400.0	90.00	90.15	6,091.6	-1,190.02	293.6	10,446.7	10,450.8	0.00	0.00	0.00
15,500.0	90.00	90.15	6,091.6	-1,190.02	293.3	10,546.7	10,550.8	0.00	0.00	0.00
15,600.0	90.00	90.15	6,091.6	-1,190.01	293.0	10,646.7	10,650.8	0.00	0.00	0.00
15,700.0	90.00	90.15	6,091.6	-1,190.01	292.8	10,746.7	10,750.7	0.00	0.00	0.00
15,800.0	90.00	90.15	6,091.6	-1,190.01	292.5	10,846.7	10,850.7	0.00	0.00	0.00
15,900.0	90.00	90.15	6,091.6	-1,190.00	292.2	10,946.7	10,950.6	0.00	0.00	0.00
EPI: 985ft FNL & 600ft FEL of Sec 18										
15,948.4	90.00	90.15	6,091.6	-1,190.00	292.1	10,995.2	10,999.1	0.00	0.00	0.00
EOT TO 90.18° AZ										
15,949.5	90.00	90.19	6,091.6	-1,190.00	292.1	10,996.2	11,000.1	3.00	0.00	3.00
16,000.0	90.00	90.18	6,091.6	-1,190.00	291.9	11,046.7	11,050.6	0.00	0.00	0.00
16,100.0	90.00	90.18	6,091.6	-1,190.00	291.6	11,146.7	11,150.6	0.00	0.00	0.00
16,200.0	90.00	90.18	6,091.6	-1,190.00	291.3	11,246.7	11,250.5	0.00	0.00	0.00
BHL: 983ft FNL & 300ft FEL of Sec 18										
16,248.9	90.00	90.18	6,091.6	-1,190.00	291.2	11,295.6	11,299.4	0.00	0.00	0.00

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
451.7	451.6	PIERRE SHALE (BASE FOX HILLS)				
3,249.8	3,181.6	PARKMAN				
3,990.0	3,901.6	SUSSEX				
4,750.7	4,641.6	SHANNON				
6,202.3	5,996.6	SHARON SPRINGS SHALE				
6,335.7	6,056.6	NIOBRARA FORMATION				
6,367.1	6,066.6	NIOBRARA A CHALK				

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14A-13-18-3
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4901.6usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4901.6usft (Original Well Elev)
Site:	NE NE SEC.14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14A-13-18-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Plan Annotations				
Local Coordinates				
MD (usft)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Comment
0.0	0.0	0.0	0.0	SHL: 1289ft FNL & 978ft FEL of Sec 14
300.0	300.0	0.0	0.0	START NUDGE (2"/100ft BUR)
970.3	964.2	23.4	74.5	EOB TO 13.41° INC
4,866.7	4,754.4	293.9	936.3	END OF TANGENT
5,537.0	5,418.6	317.3	1,010.8	EOD TO VERTICAL
5,637.0	5,518.6	317.3	1,010.8	KOP (10°/100ft BUR)
6,537.0	6,091.6	315.9	1,583.8	BPI: 983ft FNL & 600ft FWL of Sec 13
15,948.4	6,091.6	292.1	10,995.2	EPI: 985ft FNL & 600ft FEL of Sec 18
15,949.5	6,091.6	292.1	10,996.2	EOT TO 90.18° AZ
16,248.9	6,091.6	291.2	11,295.6	BHL: 983ft FNL & 300ft FEL of Sec 18